St. Bartholomew's Hospital Journal.

"Æquam memento rebus in arduis
Servare mentem."
—*Horace*, Book ii, Ode iii.

VOL. XLI.—No. 11.] AUGUST 1ST, 1934. PRICE NINEPENCE.

CALENDAR.

Fri., Aug. 3.—Lord Horder and Sir Charles Gordon-Watson on duty.
Tues., ,, 7.—Dr. Hinds Howell and Mr. Harold Wilson on duty.
Fri., ,, 10.—Dr. Gow and Mr. Girling Ball on duty.
Tues., ,, 14.—Dr. Graham and Mr. Roberts on duty.
Fri., ,, 17.—Prof. Fraser and Prof. Gask on duty.
Mon., ,, 20.—**Last day for receiving matter for the September issue of the Journal.**
Tues., ,, 21.—Lord Horder and Sir Charles Gordon-Watson on duty.
Fri., ,, 24.—Dr. Hinds Howell and Mr. Harold Wilson on duty.
Tues., ,, 28.—Dr. Gow and Mr. Girling Ball on duty.
Fri., ,, 31.—Dr. Graham and Mr. Roberts on duty.

EDITORIAL.

CHAOS is come again with the holiday transmutation of the wards. What may be a time of diversion and enjoyment to the carefree patient and student, brings a whole world of restless cares to those beset with the trials of organization.

In one case this year, Surgery accommodates Medicine in the New Block. The prey of the Scalpel makes way for the subjects of the Stethoscope. P.D.U.'s and colostomies give place to P.A.'s and diabetics, splints and dressings to sputum-mugs and diet-sheets. The Staff are therefore to be congratulated on the composure with which they meet the situation.

Happy are they that have succeeded in arranging their holidays so as to avoid a part at least of this time—the dresser with his greedily snatched, and as grudgingly given fortnight, with the inevitable "extra couple of days", and the chief with his luxurious month or more. *Tempus est ludendi* and the results are similar on the return—"pigmentation plus" and that air of mild dejection that the proverb promises to the many.

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At the Royal College of Surgeons Sir Holburt Waring was re-elected President by the Council.

Mr. H. J. Seddon and Mr. G. C. Knight were appointed Hunterian Professors; Mr. R. W. Raven was appointed an Erasmus Wilson Lecturer.

R. J. Brocklehurst, M.A., D.M., Professor of Physiology at Bristol University, has been appointed Dean of the Medical Faculty.

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The following St. Bartholomew's men have been elected to serve on the Council of the British Medical Association for the year 1934–35, viz.: W. McAdam Eccles, P. L. Giuseppi, Lewis G. Glover, E. W. G. Masterman, F. A. Roper, W. E. Waterfield, W. G. Willoughby.

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Mr. E. W. G. Masterman, in his Presidential Address to the Metropolitan Counties Branch of the B.M.A., dealt with the Council General Hospitals of London, viewed from within in relation to the medical profession. We cannot, in the small space at our disposal, do any justice to the address, but it is reported fully in the *British Medical Journal* (Supplement), June 30th, 1934, p. 333. We recommend it, however, to everyone for its clear presentation of the many problems involved. Special emphasis is laid on the value of the L.C.C. hospitals as potential training-grounds for the student and young practitioner.

The address concludes: "Briefly, I would have the medical profession, in London at least, to realize that the council hospitals are no hostile rivals of our old voluntary hospitals, but necessary and working allies; that the new service, now so unified, is becoming rapidly worthy of our great city, and destined to be a growing boon to the poor of London; and lastly, that the service presents both to the young practitioner and to the would-be nurse openings for a career and opportunities for education and service well worthy of their consideration."

A Central Committee is to be set up to deal with the affairs of the London voluntary hospitals in order that the present duplication of activity may be avoided.

Agreement has now been secured, following conferences between representatives of the London Voluntary Hospitals Committee and the London Regional Committee of the British Hospitals Association.

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A. W. Franklin and A. E. Robb Smith have been selected for the Dorothy Temple Cross Research Fellowships in Tuberculosis for 1935, for America and Europe respectively.

* * *

R. J. Sutton has been selected to represent England at the British Empire Games in the 100 yards swimming race. He was also chosen to captain the water-polo team against Hungary and to play against Wales and Ireland. The banner of the Cross of St. George is to be carried by him at the parade of the Nations.

C. P. Reilly will represent Australia in the 440 yards Hurdles. In an exhibition race on July 28th he beat the English representative by a yard.

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We have read in the lay press that R. Bettington, amateur golf champion of Australia, is beginning to take his golf "more seriously" with a view to higher honours.

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X-RAY DEPARTMENT.

We have been asked to make the following corrections to the Time-table published in our last issue:

DIAGNOSTIC SECTION.—At 9.30 a.m.: Monday, Dr. Loughborough; Tuesday, Dr. Finzi and Dr. Sparks; Wednesday, Dr. Stone; Thursday, Dr. Loughborough; Friday, Dr. Sparks; Saturday, Dr. Sparks.

At 1.30 p.m.: Monday, Dr. Sparks; Tuesday, Dr. Stone; Thursday, Dr. Stone; Friday, Dr. Loughborough.

THERAPY SECTION.—At 9.30 a.m.: Monday, Chief Assistant; Tuesday, Chief Assistant; Wednesday, Dr. Levitt; Thursday, Chief Assistant; Friday, Dr. Levitt; Saturday, Chief Assistant.

At 1.30 p.m.: Monday, Dr. Finzi and Dr. Levitt; Tuesday, Dr. Levitt; Thursday, Dr. Levitt; Friday, Dr. Finzi.

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THE ST. BARTHOLOMEW'S HOSPITAL GOLFING SOCIETY.

The St. Bartholomew's Hospital Golfing Society held their Seventh Summer Meeting at Beaconsfield on Wednesday, June 20th. The meeting was a most enjoyable one, and the course played well and, in spite of the drought, the greens were excellent. Twenty-four members took part in the competitions and the majority stayed to supper. The hospitality of the Club was much appreciated, thanks to the Secretary and Steward of the Club.

The results were as follows:

GORDON-WATSON CUP.

Winner: E. F. S. Gordon (3 up). *Runner-up:* W. A. Barnes (1 down).

Best "Last 9 Holes": 1, E. F. S. Gordon (4 up); 2, B. Rait Smith (1 up); 3, R. S. Corbett (all square).

Sealed Holes: B. Rait Smith (1 up); T. H. N. Whitehurst (1 up).

FOURSOMES.

J. G. Milner and J. W. D. Buttery (1 up); W. A. Bellamy and R. S. Corbett (1 up); E. M. Darmady and B. Rait Smith (3 down).

Best "First 9 Holes": J. G. Milner and J. W. D. Buttery (2 up); A. C. Roxburgh and J. H. T. Davies (all square); W. A. Bellamy and R. S. Corbett (all square).

Sealed holes: J. G. Milner and J. W. D. Buttery (2 up); Bedford Russell and F. L. Hopwood (1 down); W. A. Bellamy and R. S. Corbett (1 down); E. F. S. Gordon and R. Coyte (1 down).

Thanks to Lord Riddell and Sir Milsom Rees, arrangements have been made for the Society to play the Autumn Meeting at Walton Heath on Tuesday, October 2nd, 1934.

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A CONTRIBUTION TO PATHOLOGY.

The street medicine vendor was addressing an admiring audience:

"I don't believe for one moment," he said, "that any person standing here, unless he is a medical man, can point out to me where the *too*berclar vein lies in his body—Yes!" he thundered, "the *too*berclar vein."

He then produced an embellished diagram of the sympathetic system and showed us where the vessel descended from the region of the left axilla to the mediastinum.

"Sunbathing," he continued, "is one of the worst things you can do to yourself, as all doctors know. Just for one hour it is all right, but only for an hour; when you go beyond this the rays begin to tell on the body, and the *too*berclar vein gets stopped, and then blocked up altogether. Then the blood flow is stopped and *too*berclosis sets in."

At this point I passed on, marvelling at the extent of my ignorance of a structure of such importance.

Ultra-violet radiation may be inadvisable in phthisis, but one had not heard before this attractive theory of its ætiology.

S.

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CROSSWORD SOLUTION.

ACROSS.—1, Babinski. 4, Prostate. 8, Accord. 9, Purine. 11, Electrocardiogram. 14, Inion. 15, Aorta. 18, Hirer. 19, Ear. 20, Tye. 21, Ratio. 24, Oto. 25, Loa. 28, Tarsi. 29, Widal. 32, Price. 33, Oligodendroglioma. 36, Spinal. 37, Retina. 38, Effigies. 39, Paraffin.

DOWN.—1, Bacteria. 2, Nicotine poisoning. 3, Karyo. 5, Round. 6, Spirocheta pallida. 7, Ephemera. 8, Acetic. 10, Errors. 12, Coo. 13, Rot. 15, Arrow. 16, Rated. 17, Atoll. 22, Atropine. 23, Brains. 26, Lipoma. 27, Venation. 30, Ion. 31, Air. 34, Enate. 35, Opera.

Again no correct solutions were received. Dr. C. F. Hadfield has been awarded the prize, having only three mistakes in the two puzzles.

Owing to lack of space there is no Crossword this month, but it is hoped that another will appear in September.

OBITUARY.

MR. WILLIAM FOSTER CROSS.

WILLIAM FOSTER CROSS, M.R.C.S.(Eng.), L.R.C.P.(Lond.), Consulting Anæsthetist to St. Bartholomew's Hospital, who died at his residence, Clay Point, Flushing, Falmouth, on July 14th, was the third son of the late Mr. William Henry Cross, B.A., J.P., who held the post of Clerk to the Governors from 1866 to 1905.

William Foster Cross was born within the precincts of St. Bartholomew's, and lived the greater part of his life there. As a boy and as a student he lived in the Clerk's House with his father. During the exceptionally long period in which he held the post of Resident Anæsthetist he was, of course, still within the Hospital walls. After joining the Visiting Staff he continued to give the major part of his working time to the service of his Hospital. He had the old-fashioned Bart.'s tradition in his bones that the Hospital has the first claim on its Staff. When I first knew him he was already Junior Resident Anæsthetist. He had the makings of a very competent general physician, but he made himself a superlative anæsthetist. Within a brief period his reputation was so far established that he was doing a considerable private practice. At the time of his election to the Visiting Staff his position was already assured. For the remainder of his professional life he devoted himself quietly and efficiently to his Hospital and his practice. His reputation rested almost entirely on personal contacts. He wrote nothing, and away from the Hospital he talked little of anæsthetics.

Cross was the third and possibly the greatest of the three great Bart.'s chloroformists. He followed in the tradition and practice of Mills and Gill, and worked miracles with a drop-bottle and a bit of lint. With his patients he was quietly cheerful, encouraging and competent. During operations he was always vigilant and collected, refusing to be "rattled". He had an almost uncanny power of knowing exactly what the patient's condition was, and the great gift of absolutely level anæsthesia. His patients were seldom sick after operation, and could be forgotten by the surgeon during operation.

As a colleague he was admirable. He had a great capacity for smoothing out the small tangles and annoyances which are bound to occur between the interlocked departments of surgery and anæsthetics. As an anæsthetist he was on the conservative wing. He was not fond of new methods and made little use of them, preferring to stay in the ways by which he got scuh admirable results. As a companion he endeared himself to his many friends.

During the years of his retirement in Cornwall his main interests were his garden, and the persistent exploration of the county in his car. He was never a robust man, but he enjoyed on the whole a better level of health after retirement than in London.

Reputations often die almost more quickly than their owners. W. F. Cross should be remembered as one of the founders of the St. Bartholomew's School of Anæsthetics.

C. E. W.

THE TREATMENT OF STERILITY IN THE MALE.*

THE fact that I have been asked to take part in a discussion on sterility is in itself a sign that times have changed, and that the importance of examining the husband in cases of childless marriage is now fully recognized. Although we are more concerned to-day with the question of treatment, it is impossible to deal with this satisfactorily without a few preliminary remarks on the question of diagnosis, for it is on this that the treatment we adopt must depend.

Briefly stated it may be said that the surgeon who undertakes to investigate the fertility of any male must be prepared to answer the following questions: Is the semen deposited properly within the female passages? Does it contain a sufficient number of healthy, active spermatozoa? Are the secretions of the accessory sexual glands normal and conducive to the life and well-being of the spermatozoa?

The first question is, as a rule, easily answered, and need not be discussed. It is, of course, a well-known fact that a woman may conceive even although the semen is deposited at the entrance to the vagina, but other things being equal, impregnation is more likely to occur when the semen is ejaculated on to the cervix. For this reason the rectification of sexual disabilities in the male, such as premature ejaculation and weakness in desire, with, as a consequence, infrequent coitus, may form part of the treatment of a childless marriage.

The answers to the questions whether the semen contains a sufficient quantity of healthy, vigorous spermatozoa and whether the secretions of the accessory sexual glands are normal are obtained from the examination of a condom specimen. The fact that he can examine and estimate the number of cells present in an ejaculation gives the andrologist a great advantage over the gynæcologist. Whereas the latter can only presume that ova are being formed and discharged

* A lecture in the Post-Graduate Course given in St. Bartholomew's Hospital.

when he finds an apparently normal ovary, the genito-urinary surgeon can state with absolute certainty whether the male gamete is present in sufficient numbers for impregnation. He is, indeed, in a position to express an opinion as to the degree of fertility that exists, for this will depend to a great extent on the number of healthy spermatozoa deposited in the female passages at each intercourse. Dr. Macombie and M. E. Saunders have stated, as a result of their experience, that if there be less than sixty million spermatozoa per c.c. of semen, conception is unlikely to occur. My own feeling is that this statement must not be taken too absolutely, for in my practice I have encountered husbands suffering from severer degrees of oligozoospermia than this who have succeeded in impregnating their wives. This, however, does not alter the fact that conception is less likely to occur when a low spermatozoon count is obtained. I agree also with these investigators' statement that generally speaking the larger the size of the testes, the greater with be the fertility. Low spermatozoon counts are most frequently found in patients with small testicles.

The question whether the secretions of the accessory sexual glands are favourable to the life and well-being of the spermatozoa can be answered with less certainty, owing to the fact that the *rôle* of the accessory sexual glands in reproduction is imperfectly understood. Nevertheless, the discovery of pus-cells in these secretions is of importance, for pyospermia almost always implies a state of lowered fertility. Not infrequently it is associated with necrozoospermia.

On looking through my case-records I find that the commonest causes of sterility in the male are azoospermia or oligozoospermia, and it is, therefore, with the treatment of these conditions that we are chiefly concerned to-day. It is obvious that azoospermia or complete absence of spermatozoa from the semen may result from one of two causes—the existence of an obstruction in the genital tract that prevents the escape of spermatozoa into the outer world, or failure on the part of the testes to secrete them. The commonest cause of the former is a previous attack of gonorrhœa associated with bilateral epididymytis. Careful palpation of the lower pole of the epididymis will, in these cases, generally reveal the existence of an indurated area. It was in the hope of remedying this occlusion of the epididymal canal that Martin, of Philadelphia, many years ago introduced the operation of vaso-epididymostomy. Owing, however, to the smallness of the ducts involved and the inevitable cicatrization that followed operation, his attempt to short-circuit the obstruction in the epididymis rarely, if ever, succeeded, and most surgeons have now abandoned the operation of vaso-epididymostomy as impracticable. Recently, however, F. R. Hagner has published far more favourable results than have previously been claimed, and has encouraged others to give the method a further trial. Hagner's technique differs very little from that generally adopted, but he lays emphasis on the necessity of examining microscopically the fluid obtained from the epididymis at the site of implantation of the vas in order to make certain that spermatozoa are present in that situation. He also recommends the use of fine silver wire as a suturing material. Employing this technique, he states that 19 out of 31 patients were cured, the proof of the cure being that they became fathers. These figures are somewhat astonishing, and neither I nor any other investigator have yet been able to rival his performance.

In my practice azoospermia due to absence of spermatogenesis has proved of more frequent occurrence than azoospermia resulting from blockage. It has, indeed, surprised me how often one discovers this condition in men whom a cursory examination would lead one to pass as fertile males.

The causes of azoospermia are varied, for it must be remembered that the spermatogenic function of the testicle is one of the most delicately poised of all glandular mechanisms. Indeed, there are few pathological changes that can take place either in the testicle or elsewhere in the body that do not affect it. It would be possible to occupy the whole of the time at my disposal in discussing the reaction of spermatogenesis to infective processes, to toxæmias, to radiations, to endocrine disturbances and to diet. In my opinion, practically every disturbance of the general efficiency of the body may have repercussions on spermatogenesis, and the fact that menagerie animals, even when kept under the best possible conditions, generally become sterile, supports this view. The treatment of spermatogenesis, therefore, resolves itself into a raising of the general level of health, the elimination of any depressing factor elsewhere in the body, and in attention to a great many details which at first sight might seem unconnected with the act of reproduction. In the stockyard, the sterile animal is put out to grass in the hope that increased health will revive the ability to reproduce. My own feeling is that if to sedentary humanity the same treatment could be meted out, there would be an immediate rise in the birth-rate.

There are two other possible lines of treatment, both based on the idea of providing a stimulus to the testicle. The gonads are more directly under the influence of the pituitary than of any other gland, and the administration of anterior pituitary in cases of spermatogenic deficiency is a logical step. Moreover, the work of

Paul, Osborne, Evans, Bishop and many others has clearly shown that fertility is markedly affected by diet. Whether we believe in the existence of vitamin E or not, it is an undoubted fact that when rats are kept on a deficient diet, degenerative changes may be seen in the testes. With this in view, I am giving to husbands suffering from aspermatogenesis wheat germ oil, in the hope that a liberal supply of vitamin E may have a good effect.

But, as in most problems in medicine, the more one studies the riddle of sterility, the more complicated does it become. Where a single factor was once believed to exist, several factors are now found. Some of these have already been noted, but there is one that has not yet been mentioned, namely, the factor of heredity. Just as there are infertile breeds in the stockyard, so are there infertile families in human society, and on inquiring into the family history of childless husbands, one frequently finds that they themselves are only children, and that their aunts, uncles and cousins are few. Little is it to be wondered at that with so many blanks in our knowledge, and with so many factors to be considered, the medical man who is called upon to treat sterility in the male should be deeply conscious of his helplessness.

KENNETH WALKER.

THE TREATMENT OF STERILITY IN WOMEN.*

IT is impossible, within the limits of this lecture, to discuss the treatment of sterility in women in detail, and only a few methods will be mentioned.

The fertility rate in this country is difficult to determine at the present time owing to the rapidly spreading use of contraceptive measures, but there is no reason to suppose that the sterility rate has increased since Matthews Duncan carried out an extensive investigation of the subject at the end of last century. The figures obtained were as follows:

Percentage of cases failing to bear a child within two years of marriage: Aged 20–30, 17%; aged 30–40, 48%; aged 40–50, 90%.

These figures do not give the true sterility rate, as conception is fairly common after two years of married life, but they indicate the rapid increase in the sterility rate as age progresses.

In a normal menstrual cycle of 28 days, ovulation has been proved conclusively to occur between the twelfth and seventeenth days, and there is no scientific evidence in the human being that dependent ovulation occurs as a result of coitus. If this is the case, then the period of high probability as regards fertilization of the ovum rises rapidly as the time of ovulation approaches, and falls rapidly as menstruation approaches. If dependant ovulation does occur in woman, it will do so after a coitus which occurs before the period in which independent ovulation normally takes place.

In the investigation of sterility it is probably justifiable to refrain from detailed examination of the woman by tubal insufflation, etc., until the patient of between 20 and 30 years has been living a normal married life for three years, and for two years if she is between 30 and 40 years old. In all cases the husband should be examined before detailed examination of his partner is carried out.

The following classification is of some value in the elucidation of the various causes of sterility.

Negative history: Positive findings.—Congenital hypoplasia causing the various maldevelopments of the uterus, appendages and vagina. Sometimes associated with extreme intrinsic dysmenorrhœa and scanty menses.

Positive history: Positive findings.—Inflammatory causes; fibro-adenomata; pelvic endometriosis, etc.

Negative history: Negative findings.—Incompatibility or sterile by immunity, which sometimes appears to be an acquired condition.

A large number of patients who complain of sterility have no palpable abnormality in the pelvic organs, and in these cases it is necessary to test for the patency of the Fallopian tubes. This can be done either by insufflation of the uterus and tubes with air or other gas, or by the injection of lipiodol into the uterus followed by an X-ray photograph of the pelvic organs. Rubin, after many years' experience with the insufflation method, has found that in 33% of cases of sterility due to the female there is tubal occlusion. The test is easily carried out, but an anæsthetic is necessary, and the apparatus must be tested for air leaks before it is used; at no time must a pressure of over 200 mm. of mercury be exceeded in the cavity of the uterus and Fallopian tubes. The patency of the tubes is determined by the subsiding pressure in the cylinder used, and by listening *per abdomen* to the hissing noise produced by the passage of gas through the Fallopian tubes into the peritoneal cavity. An X-ray of the abdomen will also show a pneumoperitoneum if gas has passed through one or both Fallopian tubes. Pregnancy occurs soon after this treatment in some cases, possibly owing to the fact that the gas under pressure in the tube has

* A lecture in the Post-Graduate Course given in St. Bartholomew's Hospital.

unstuck the plicæ of the mucous membrane which were adherent and bound together. It is possible also for the gas pressure to blow out a plug of mucus which is inspissated, thus causing tubal occlusion. Rubin believes that spasm at the utero-tubal junction does occur, and that by the use of tubal insufflation this can be overcome.

The injection of lipiodol under pressure into the uterus followed by an X-ray has some advantages over the insufflation method. The X-ray photograph

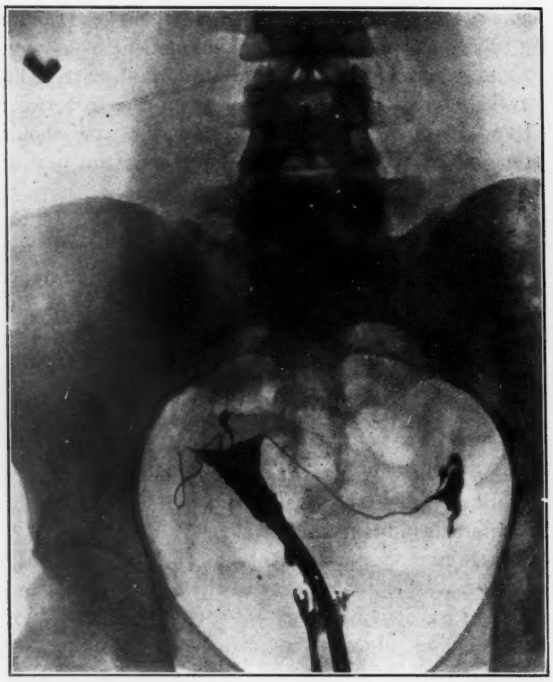

FIG. 1.—X-RAY PHOTOGRAPH OF UTERUS AND FALLOPIAN TUBES AFTER INJECTION OF LIPIODOL. BOTH FALLOPIAN TUBES HAVE FILLED NORMALLY.

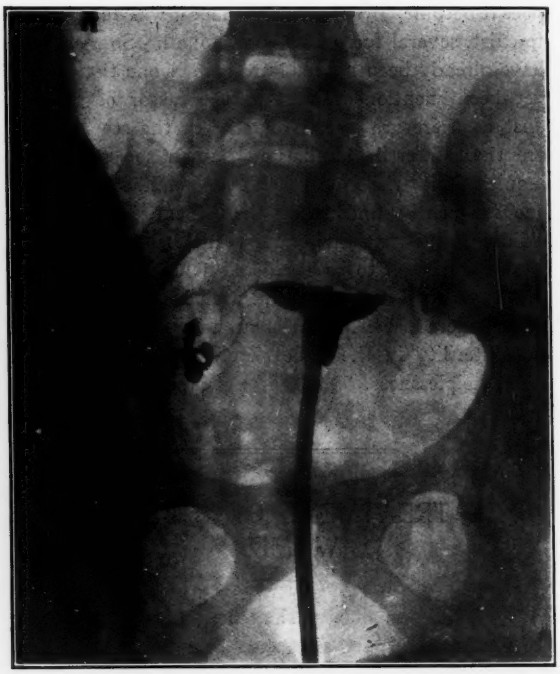

FIG. 2.—X-RAY PHOTOGRAPH OF UTERUS AND FALLOPIAN TUBES AFTER INJECTION OF LIPIODOL. THE RIGHT TUBE IS PATENT; THE LEFT TUBE IS BLOCKED AT THE JUNCTION BETWEEN ISTHMUS AND AMPULLA.

obtained shows exactly where the tube is blocked, which is of great value in deciding whether the operation of salpingostomy is justifiable or not (Fig. 2). The iodine content of the lipiodol may be beneficial in cases of mild catarrhal salpingitis which have left the tube in an abnormal condition, but neither insufflation nor lipiodol injection should be undertaken if there is any evidence of a recent cervical or tubal infection.

The operation of salpingostomy may be undertaken in selected cases, but as conception occurs in only about 17% of cases following this operation, it should be performed only on patients who are willing to undergo any treatment in order to obtain a child.

Retroversion may be a cause of sterility, as there is evidence for saying that a retroverted uterus can cause tubal occlusion, which is cured by anteversion. The cervix of a retroverted uterus is directed forwards and downwards, and may come into contact with the anterior vaginal wall in the region of the anterior fornix; the spermatic fluid normally collects in the posterior fornix and, in such cases, may not reach the cervical canal in appropriate quantity. In some cases of retroversion of the uterus the ovaries are prolapsed into the pouch of Douglas, and cause severe dyspareunia, which itself is a common cause of sterility. In cases of sterility with a retroverted uterus it is justifiable to antevert the uterus and fit a Hodge pessary which should be worn for a few months; if after this time the uterus does not remain in the anteverted position an operation for suspension of the uterus should be considered.

In cases of congenital abnormality of the cervix such as elongation and pin-hole os dilatation of the cervical canal may be carried out, but there is little reason in these cases for curetting the endometrium as well, for there is no evidence that the endometrium is diseased. Coitus should take place a few days after the dilatation, which should be performed on the seventh to twelfth day of a normal twenty-eight-day cycle.

The vaginal secretion is acid to the extent of pH 4·5–5·5; such a degree of acidity is inimical to spermatozoa, but during a normal coitus the spermatic fluid and the alkaline secretion produced by the mucous membrane of the cervical canal are sufficient to neutralize the acidity in the vagina. A degree of acidity of pH 3·7 is lethal to spermatozoa, and is occasionally found in the vaginal secretion. Hyperacidity may be treated by vaginal douches of weak sodium bicarbonate solution, or, better still, by a douche of normal saline given a few hours before coitus takes place, at the period of ovulation.

Infections of the cervical canal are a predisposing cause of sterility, for it has been proved that the mucopus from the infected area is lethal to spermatozoa. In such cases treatment of the cervicitis is essential.

The sterility rate is greatly increased in cases of fibroids of the uterus, which should be removed by myomectomy in selected cases.

The treatment of sterility by hormones has received considerable attention in recent years. The administration of large doses of œstrin, by intramuscular injection, is rational if given to patients who suffer from the various forms of under-development of the uterus, and results are claimed from the use of 1000 rat units of œstrin given daily on the fourth to eleventh days of the normal menstrual cycle.

Vitamin E, in the form of wheat germ oil, may be administered over a long period, but it is probable that the average diet of healthy persons contains a sufficient quantity of this vitamin to promote normal growth and development of the ovaries.

The anterior lobe of the pituitary gland controls the normal ovarian cycle and, in recent years, a so-called "stimulating dose" of X-rays has been administered to the pituitary gland, as a method of increasing the output of the anterior lobe secretions which control the ovarian cycle. This method of treatment of cases of sterility, where there are no abnormal physical signs in the pelvis, has been tried in certain clinics on the Continent and in America with fair success and is worthy of trial, but in this country an insufficient number of cases have been treated in this way to give an indication of the percentage of successes likely to be obtained.

JOHN BEATTIE.

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p.p.

Mary has another cup.
I see no reason why
Next year there should be any left
For me or Tom or Guy.

BART.

SOCRATES AT THE FESTIVAL DINNER.

(With humble apologies to Plato and Jowett.)

TWENTY days had gone by since Socrates landed after his visit to England. Almost every evening had been taken up with hearing accounts from him of the people, the government, the learning, and the art of that remarkable country.

And now Eryximachus had his desire. We were gathered at his house to hear from Socrates something of the practice of medicine in England. Eryximachus was bursting with questions about the innumerable English "degrees", the General Medical Council, the hospitals, the schools of medicine—hardly realizing that Socrates, with all his wisdom, was not a fellow physician.

"No," said Glaucon, "let Socrates speak as he likes; after all, Eryximachus, even if Socrates could answer all your questions, many of his replies would be unintelligible to the rest of us, for we are not physicians."

"That is reasonable enough," said Eryximachus, "and I suppose, Socrates, that I can talk with you privately at some other time about matters that are not of interest to all."

"Most certainly, though I cannot promise to answer one-half of all you may ask. But I must thank Glaucon for his words, and with your permission I will take my own course. There is much to say, and this pleasant symposium will have to be repeated many times if you wish me to exhaust all that I saw and heard of the English physicians and their ways.

"Let me begin by telling you of a medical feast that I went to some weeks after arriving in London. I was invited to it by the senior physician of a famous, though not very ancient hospital. Soon after sunset, I was taken by my host to a magnificent temple-like building, larger than the Parthenon, though not so beautiful. But I must not do more than say that this was the hotel where the 'Festival Dinner' was held, and that I felt a little awkward in my faded tunic among so many men of noble bearing dressed in what they call 'tails'. My host told me that it was a 'stag' dinner—which means all men. You will believe me when I say that I found English a difficult language.

"After some modest drinking of 'cocktails' we found ourselves seated in a great hall at long and gaily decorated tables. I was placed on the right hand of a most gracious and cultured nobleman—my host told me that he was the president of the hospital. The names of all the guests were graven on the 'menu', and among them were people that one would hardly expect to find connected with a hospital. There were two or three

great athletes, a golf champion (I cannot stop to explain to you what golf is), a cartoonist, a famous actor, a newly-made noble who attained to great wealth through the sale of pork pies, and many others. A few lesser potentates called mayors, and, as you would expect, many physicians and surgeons. Before each one of us was a silver pen and a curious unsealed envelope; on the outside of mine was written 'Prof. Socrates'. The rare foods, the many wines we drank, the entrancing music, sometimes martial, at others soft and seductive, are among my happiest memories. But the important part of the feast was the speeches. The President made a kindly speech of welcome, and then told us something of the work and of the needs of his hospital. Other speakers dwelt on the same subject, and it became very evident that the real purpose of the symposium—festival dinner, I mean—was to ask for money to continue the work of the hospital."

Here Socrates was interrupted by Agathon, who said, "Don't tell us about *their* speeches—tell us what you said when you replied to the toast—'The Guests, coupled with the name of Professor Socrates'."

"Yes, let us hear it," we all cried; "it must have been the best speech of the evening."

"The London papers did not think so," said Socrates, "and I was not going to tell you anything about it—for I am sure you would be more interested to hear what the Mayor of Popwick and the pork-pie peer had to say."

"But one paper reported you in full," said Agathon; "here is the cutting from the *Daily Herald*".

He handed it to Socrates.

"I have not seen this; the *Times* and the *Telegraph* said something about my living up to my reputation as an after-dinner speaker, but they said nothing about the substance of my speech, which, possibly, was not surprising. I do not know this paper; it must be different from the others. Yes, if you wish, I will read you what I said; it seems to be here in full:

"'Your Grace, my Lords, . . .' No, I will miss all that out and come to the main part of my little address. . . . 'As you may know, my chief occupation is to seek after truth, and though I do not know what truth is, yet it is the only subject on which I can speak. You must bear patiently with such a narrow-minded man (at this point some said "Hear, hear", others "No, no", but they all intended to be encouraging and courteous). I speak the truth when I say that your hospital is saving the lives and guarding the health and happiness of thousands of people, and that the work of your physicians and surgeons is altogether admirable. It is good, beautiful, and true. But there is one thing that I must question, for I cannot see even a faint glimmering of truth in it, and therefore it must be examined. Let me ask you all—is this a *festival* dinner? Although much has been said about the work of the hospital that is a cause for rejoicing, the real purpose of this feast is to reduce the hospital's appalling debt of £22,000. The hospital has no money. Some comes in, but it is as quickly spent. Is this a cause for rejoicing—for a festival? We have heard that wards may have to be closed; the out-patient rooms are much too small; the theatres are out of date. And there is no money.

"'Now it is readily admitted that a hospital is as necessary a part of the national defences as a warship; for the enemies that the hospital fights are ever at war. Death and disease continue to hurt your people however peaceful and prosperous they may appear to be in other respects. Yet when a new battleship is needed, do you have a festival dinner and make speeches to say that the Navy is so out of date that it will be in dire distress unless a number of wealthy men give of their substance to help pay for the new vessel? No. The money is provided by the Government. You are taxed—the battleship is built.

"'In time of war the protection afforded by this battleship is available for all. The rich man has paid more for his own protection than the poor man, who is less heavily taxed. Consider now the voluntary hospitals. The provision for the poor is princely; the provision for the middle class, sometimes good, too often bad, and always expensive relative to the man's means; for the rich, not so good as for the poor, and most costly. How curious that all the advantages so jealously claimed for the voluntary system are enjoyed to the full only by the poor!

"'Your hospital is now voluntary only in name, and as regards the visiting staff. Yet the name is valuable, for it enables you to appeal for money in all sorts of ways; a sad example of one way is our gathering to-night. Why not abandon this archaic system? As an individual hospital—impossible. In concert with every voluntary hospital in London—difficult but worth while. There is nothing to prevent you apart from your English hatred of united action for the common good. The rest of the country could be left to itself. London is great enough to act alone; the rest would follow.

"'State aid—still more State control—frightens you, though I am told that some would welcome it. You seem ready enough to receive State aid for research work and to appreciate the work done by the Medical Research Council. But even if anything approaching State control is so abhorrent there is another way—one that has been carried to perfection in at least one great

foreign centre. A hospital may become a self-supporting institution, drawing its patients from all ranks of society, asking and receiving such payment from them as to enable every branch of the work to continue without let or hindrance. In this country it should be possible for the poor to be paid for by the State, the middle class by private insurance, and the rich paying out of their abundance.

"'Think now of the ease of your work under such conditions. No hurried journeys between consulting-room, nursing homes, and hospital; all your work under one roof; an assured income. Now you struggle to get through the routine work. There is no time for contemplation, for reviewing your results, for co-operation in your work. Only a short time ago two of your great men bewailed the lack of progress in the fight against cancer; one of them said that one form of this dread disease was being treated by as many as twelve different methods in the same hospital, no attempt being made to determine which was the best. This cannot be due simply to vicious individualism, but rather to everlasting busyness making united action impossible.

"'Some of you are approaching the retiring age. You are comfortably off; maybe you feel that time will hang a little heavily on your hands. Tending a rock-garden at your cottage in the country will not satisfy you for ever. Here is a grand field for enterprise—to reconstruct your hospital system on a rational basis. To supersede with something better a venerable but outworn system famous for many things—its love of freedom, its free but often fruitless individualism, its duplications and waste, its drain upon the time and energy of the medical staff, the sweated labour of its nurses, its ingenuity in collecting money by means dignified and undignified.

"'When you have accomplished your task, then meet for a real Festival Dinner.'

"I think, Eryximachus, that the champagne may have caused me to talk too freely; it is a wine that I have not yet learned to drink. I must have said too much—for there were many angry faces around the tables as I sat down. My host, the senior physician to the hospital, was clearly displeased. While I was speaking I noticed that he scribbled a little message on the back of a menu, and pushed it to a friend sitting opposite, who read it, smiled a little and then nodded. Later I discovered that the message had been written on my menu card, which I had to keep for Xantippe; you may know that ever since she visited America she has been a great trophy hunter. Here is the card and the writing. Do you know what it means, Eryximachus? It passes my understanding."

I leaned over Eryximachus's shoulder as he looked at the card, and this is what I saw:

℞.
Succ. Conii Fort. ℥ij
Ft. haust. statim.
Prof. Socrates. *D.H.*

H. J. S.

A SURVEY OF THE MODERN TREATMENT OF PULMONARY TUBERCULOSIS.

TUBERCULOSIS of the lungs, generally a chronic disease, is acute in the strict sense of the word only in miliary tuberculosis and in the severe multiple caseous broncho-pneumonia and lobar pneumonia. In a larger sense of the word one may add also those acute conditions with fever, and rapid developing symptoms of inflammation and advancing destruction. The acute generalized miliary tuberculosis with infiltration of the meninges is, in spite of a few described cures, therapeutically and invariably hopeless.

Acute miliary tuberculosis of the lungs, without affection of the meninges but with extra-pulmonary localizations, is curable, especially after the age of childhood or puberty, but these cases are rare. The treatment follows the lines of the general treatment of tuberculosis.

In cases of acute tuberculosis of the lungs, the general treatment, as prescribed by Brehmer, Dettweiler and Turban is the basis of all therapy, and may be described as follows: Absolute rest in bed, especially when the disease is accompanied by raised temperatures, the patient slowly getting acclimatized to open-air treatment, first in bed in the room, then in a bed on the balcony. The success of this treatment is manifested in the disappearance of the toxic symptoms, improvement of the general condition, and increase of immunity and resistance. The open-air treatment must naturally be supplemented by ample nourishment, varied and rich in calories and vitamins. Special diet is indicated only in the case of complications.

A regular daily programme facilitates the carrying through of a cure, and helps the patient towards self-discipline.

A real systematic cure is only possible in a sanatorium. For the acute forms of tuberculosis a climatic cure is of great importance. Propaganda for curing this disease at home is absurd. The advantages of the Alpine climate are well known and proved, and it is established by years of experience that the High Alps are indicated

especially in early cases of the acute stage with infiltration, and even also for the extensive processes of broncho-pulmonary and pulmonary tuberculosis. This climate strengthens the general organism and improves the resistance. Other results are resorption of the exudative and infiltrative seats of the disease.

Hydropathic measures are advisable for the care of the skin, and to help to combat fever and night sweats.

Heliotherapy is not indicated in cases of acute forms of pulmonary tuberculosis, nor is the treatment by X-rays. Quartz lamps may be used, but with great caution.

Specific tuberculin treatment and specific stimulant therapy are contra-indicated in cases of super-sensitive types. In subacute and chronic cases both of these may be tried with safety and advantage.

Of chemo-therapy, especially as regards gold preparations, the same may be said. Sanocrysin, with regard to its possible complications, is not advisable, whereas Aurophos and Solganal B. oleosum are to be recommended as useful and safe.

Collapse therapy is of great value, especially in acute forms of pulmonary tuberculosis. Of the collapse treatment, artificial pneumothorax is the form of choice. In all more or less unilateral cases artificial pneumothorax must be taken into consideration if previous conservative treatment has not quickly had the proper effect. Favourable results may be obtained, even in cases of rapidly progressive caseous pneumonia, although there is, in these types, always a risk. Double simultaneous artificial pneumothorax may be attempted with good results in cases of bilateral diseases. The value and scope of artificial pneumothorax has been enormously increased by the present method and improved technique of the cauterization of adhesions, thus enabling a complete collapse to be obtained in many cases, when otherwise impossible.

Phrenicectomy is very useful in certain cases when a pneumothorax has failed owing to adhesions and has a favourable action in paralysing the diaphragm, so resting the lung and promoting fibrosis.

Extra-pleural plombage or apicolysis aims at the local closure of an apical cavity by means of an extra-pleural wax plug, and is in suitable cases a most useful and not a severe or risky form of intervention.

Thoracoplasty is only indicated in unilateral cases of subacute and chronic forms with a tendency to retraction.

To summarize: General treatment in sanatoria in the High Alps, combined with collapse therapy when indicated, leads to favourable and very good cures, which are successful and lasting in a great number of instances.

BERNARD HUDSON.

NEUROFIBROMATOSIS: A REPORT ON THREE CASES.

INTRODUCTION.

THE disease is commonly called by the name of von Recklinghausen, who first described its typical clinical appearances in 1882 (1). It was, however, known for at least half a century before his time, and one of its varieties was placed on record by Cheselden (1) in 1740. The most complete early description, with numerous illustrations, was made by R. W. Smith in 1849, his article being considered worthy of repetition in full in 1898 (2).

The comparative rarity of the disease combined with its unusual and varied appearance has stimulated the production of several excellent monographs (1, 2, 3), and some hundreds of cases have been described in recent years. The disease is of congenital or developmental origin, and characterized by cutaneous nodules, diffuse pigmentation, nerve-trunk tumours and, more rarely, by plexiform neurofibromata, elephantoid conditions of limbs, osseous changes, affections of mucous membranes, and a variety of congenital abnormalities and endocrine disturbances.

FIG. 1.—CASE 1: Æt. 7. KYPHO-SCOLIOSIS AND PIGMENTATION.

Several cases are attending the Out-Patient Department, and three typical cases were recently in the wards and merit description.

CASE 1.—N. S—, an unmarried Russian Jew, æt. 32, was admitted under Mr. Elmslie's care on February 14th, 1934, complaining of inability to walk, loss of sensation below the navel, constipation, and difficulty in passing water.

History of present condition.—Apparently normal at birth, apart from several large brown patches on his left thigh.

Æt. 1½: Gradual onset of curvature of the spine following a fall down three flights of stairs.

Æt. 4: He was "run over by a car", and since then the right side of his face and skull have slowly assumed their present grotesque contour. His right eye underwent painless enlargement with impairment of vision, which was finally lost at the age of 19.

Æt. 8–15: His curvature being extreme (Fig. 1), he wore a spinal jacket, and attended a school for physical defectives.

Æt. 12: New pigment patches on abdomen. On leaving school he became a commercial traveller, and did not wear a spinal jacket.

Æt. 18: Commencement of impaired hearing on right side.

Æt. 26: He developed symptoms of paraplegia and attended the London Hospital. He was sent to Mr. Elmslie. 6 months on a plaster bed and 3 months in a jacket entirely relieved his symptoms, and he returned to work for three years (without a jacket).

Æt. 25–29: Pigmentation of limbs. Sun-bathing has produced permanent freckles. Onset of skin tumours and two soft swellings in mouth, the latter following some months after removal of carious teeth. He volunteered that he has frequently noticed profuse sweating, limited strictly to the right side of his face and forehead. Hearing decidedly worse on the right side, while occasionally there is a hissing noise in this ear.

Æt. 29: Return of paraplegia. No adequate hospital treatment for nearly two years. "Crawling about" at home. Finally seen by Dr. Parkes Weber in January, 1934, and sent back to Mr. Elmslie.

Past history.—No evidence of endocrine disturbance; no serious illness.

Family history.—His mother is said to have several pigmented "birth-marks", but neither parents nor any of his twenty cousins have the typical appearance of neurofibromatosis.

FIG. 2.—CASE 1: Æt. 32. FACIAL DEFORMITY; PLEXIFORM NEUROFIBROMA; PIGEON-BREAST AND PIGMENTATION.

Condition on Examination.

Bright, intelligent man of a sensitive disposition.

Head: On the right side of the face there is a large swelling 9 in. by 9½ in. External auditory meatus almost blocked. Skin very loose—3 in. redundant. Tubular strands felt subcutaneously—"bag of worms" sensation. Deep to this, extending from thyroid cartilage to angle of jaw, are 8 mobile gland-like bodies of firm consistency, tender if compressed. Underlying but not attached to the upper part of this plexiform neurofibroma there is a bony ridge ½ in. raised on the frontal and temporal bones, running obliquely back and laterally from the middle of the eyebrow for 4 in. The right zygoma feels less prominent than the left. There is a deficiency in the outer table of the occipital bone, 1 in. diameter with irregular edges.

Right eye: The upper lid is involved in the skin condition described above, and the whole eye prolapsed 1½ in. owing partly to the weight of the adjacent mass. Ocular movements diminished in all directions. The eyeball is large, and there is a staphyloma ⅛ in. below the lower margin of the iris, which is dilated and fixed. There is a central corneal opacity, and the sclera is blue and congested. The conjunctival secretion is muco-purulent.

Left eye: Left side of face and skull normal.

Mouth: Mucous membranes not pigmented, tongue normal. Some carious teeth, pyorrhœa, fœtor oris. Protruding from the gums in the region of the upper and lower right molars, which were

FIG. 3.—CASE 1: Æt. 32. FRONTAL EXOSTOSIS; DEFICIENT OCCIPUT; LARGE PITUITARY FOSSA.

FIG. 4.—CASE 1: Æt. 32. RIGHT HEMI-HYPERTROPHY; VERY LARGE RIGHT ORBIT; MANDIBULAR EXOSTOSIS.

removed six years ago, there are two soft, non-fluctuant masses 1½ in. by ¾ in., hanging free and covered by normal epithelium. No local septic cause. Directly underlying but not attached to the lower one is an exostosis of the mandible ½ in. by ½ in., of smooth surface. The hard palate is markedly asymmetrical; epiglottis easily seen.

Cranial nerves: N.A.D. apart from right-sided blindness.

Skin: (*a*) *Pigmentation:* Present on trunk, limbs and neck, slightly more marked in parts normally pigmented, but unrelated to pressure points, and absent from palms, soles and face. Size: Pin's head to ¼ in. Several large (3 in. diameter) *café au lait* patches on abdomen and outer side of right knee.

(*b*) Nodules: One on each forearm, two on right thigh, one on back. Size ¼ in.–½ in. diameter, of bluish tint, soft, not cystic, surrounded by unpigmented skin, and containing no opening on to the surface. In the suprasternal region there is a somewhat similar nodule with an acneiform "head", which is said to have followed a burn from a cigarette.

Spine and chest: Extreme kyphosis and considerable scoliosis leading to marked prominence of the chest and apparent shortening of the neck. No evidence of spina bifida.

Legs: Spastic, knee-jerks ++, ankle-jerks ++, P.R. ↗, ankle clonus +. Partial anæsthesia up to umbilicus (T. 10). No evidence of plexiform or periosteal neurofibromata. No nodules on nerve-trunks. A cyst on dorsum of right foot apparently came from friction against his shoes.

Heart, lungs, abdomen, pelvis, testes and urine showed no abnormality. B.P. 133/85.

Ductless glands: N.A.D.

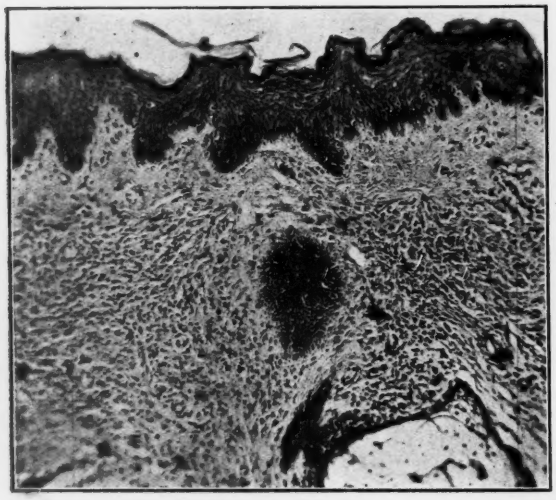

FIG. 5.—CASE 1: SECTION OF PLEXIFORM NEUROFIBROMA.

Investigations.

1. *X-rays.*—(*a*) Skull (see Figs. 3 and 4): Right hemi-hypertrophy, a very large pituitary fossa (33 by 15 mm., normal 14 by 8 mm.), a very large right orbit, deficient bone in the occiput, exostoses on the mandible and frontal bones are well shown.

(*b*) Spine: Gross kypho-scoliosis, vertebræ wedge-shaped. There has never been X-ray evidence of healed or active tuberculous caries.

2. *Blood examination.*—(All results within normal limits.) Wassermann reaction negative. Calcium 10·2 mgrm. per 100 c.c. serum. Inorganic phosphorus 4·2 mgrm. per 100 c.c. plasma. Cholesterol 195 mgrm. per 100 c.c. blood.

Diagnosis.

Von Recklinghausen's disease and compression paraplegia.

Treatment.

Gradual improvement occurred during 11 weeks' recumbency on a plaster bed. Meanwhile his appearance was improved by excision of an elliptical piece of skin redundant 1 in. wide by 3 in. long from the right side of his face by Mr. McIndoe. This raised the level of his right eye nearly to that of his left. On discharge he could walk, but still with some stiffness. Sensation and sphincter control were recovered. A spinal jacket was fitted for permanent use. Recent examination has shown gradual improvement.

Pathology.

The piece of skin removed was thick, moderately vascular, and loosely attached on its deep surface, which presented numerous thick strands of interlacing fibrous tissue. The section showed a very cellular fibrosis in the subepithelial connective tissue, with a few nerve-fibres and lymphocytes. There were no whorls of fibrous tissue and no new nerve-fibrils (Fig. 5).

CASE 2.—R. B—, a warehouse porter, æt. 40, was admitted to Smithfield Ward, c/o Dr. Geoffrey Bourne, on January 17th, 1934, complaining of paralysis of right side and difficulty with speech.

History of present condition.—Normal at birth, except for a sheet of brown pigment on left thigh.

Æt. 17: Injury to back. Admitted to Kenton Ward, where he spent 2 weeks in a plaster jacket. Shortly after discharge he developed numerous cutaneous nodules and kypho-scoliosis, both of

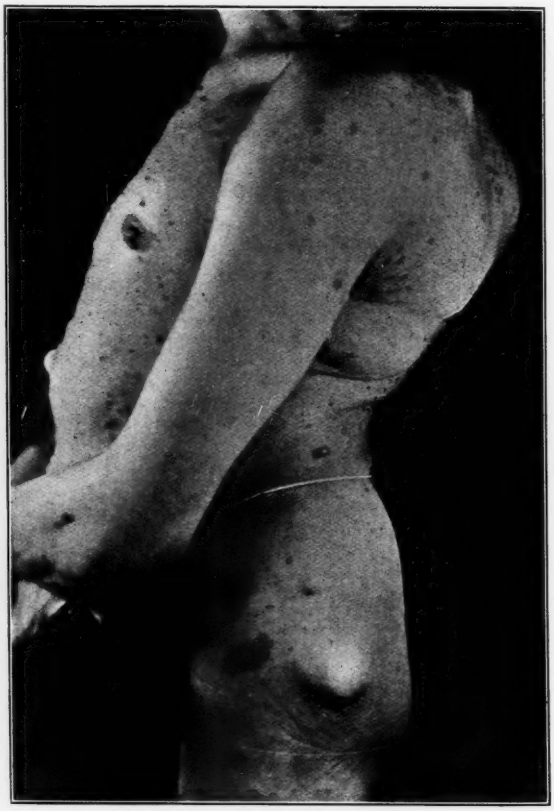

FIG. 6.—CASE 2: KYPHO-SCOLIOSIS; NEUROFIBROMATA AND PIGMENTATION.

which conditions have steadily but painlessly increased to an extraordinary degree. During recent years a few of the nodules have become brown. His spinal deformity has not debarred him from vigorous exercise.

Æt. 39 (5½ months ago): In usual health when he had a fit. Tremors and loss of control of right arm; inability to formulate the words he wanted to say; stiffness and dragging of right leg, but without loss of consciousness. Although standing at the time he avoided a fall by clutching some support. Weakness decreasing, he remained at light work. He was unable to control right hand for writing. There was severe headache and constipation.

Three months ago, second attack; more severe; mouth dropped on right side, tremors of right eye and arm. Remained at home; able to walk 100 yards with a stick, but "sagged" over to right side. Misty vision; no vomiting.

Five weeks ago: Unable to read print.

Treated with massage, radiant heat, electricity and luminal until admission.

Past history.—Six years ago: Frontal headaches and photophobia —recurring attacks.

Four years ago: Following influenza, eight months' chronic suppurative otitis media on left side, latterly causing giddiness and nausea. Mr. Just performed a Schwartze for subacute mastoiditis, and opened an extra-dural abscess in the posterior fossa. Headache relieved for over three years, until onset of "fits". No further aural discharge.

Family history.—No history of cutaneous nodules or pigmentation.

Condition on Examination:

Healthy-looking man with a mottled complexion. T.P.R. normal.

Mouth: Carious teeth; tongue furred; fœtor oris.

Skin: Multiple sessile and pedunculated nodules, most numerous on trunk and face, and of variable size (see Fig. 6). Some are firm, and others show umbilication and all stages to degeneration and discharge of white necrotic material from an acneiform ostium. Some are covered with brown pigment. There is a large sheet of pigment on the left thigh, but small patches are absent, apart from the nodules.

Spine: Gross angular kyphosis in the mid-dorsal region, accompanied by marked scoliosis, with resulting chest deformity and opening out of the costal angle.

Central nervous system: Speech slow; dysphonia and dysarthria. Amnesia verbalis. Intelligence, reading and correlation good. Writing difficult owing to spasticity of right hand and arm.

Cranial nerves:

II. Visual acuity fair; fields normal. Early papillœdema, more marked on left.

III. Slight ptosis of right eyelid, pupils R./L.A.

V. Right corneal reflex absent. Vinegar tasted like honey; sugar no taste, salt recognized. Weak right masseter. Sensation and salivation normal.

VI. Fine nystagmus to right. No diplopia.

VII. Right side of face expressionless; weak right orbicularis oris et oculi. No hyperacusis.

VIII. (*a*) Auditory left: bone-conduction greater than air-conduction. (*b*) Vestibular left: no nystagmus after syringing with cold water.

IX. Palate weak on right.

Cranial nerves I, IV, X, XI, XII, right VIII and the cervical sympathetics appeared normal.

Reflexes: Increased on right side (supinator, biceps, triceps, knee-jerks, ankle-jerks), P.R. ↘, ankle clonus on right. Lower abdominal reflexes absent.

Tone: Increased in both arms, especially right and in right leg. No wasting.

Muscle power: Weak right arm and leg. Dynamometer: Right hand 45, left hand 110.

Sensation: Impaired in right forearm. Some loss of deep pain.

Co-ordination: Poor on right side: dysdiadokokinesis; astereognosis.

Gait: Dragging of right leg. Rhomberg negative.

Neck, heart, lungs, abdomen and urine N.A.D. B.P. 135/110.

Investigations.

A. When admitted in 1930.

1. X-ray (see Fig. 7). Gross kyphosis of mid-dorsal region forming a sharp angle of 62°. Marked scoliosis. No definite evidence of tuberculous caries.

2. Removal of skin tumour and section. Vascular, soft, cutaneous fibroma. No histological evidence of connection with nerve sheath otherwise typical of neurofibromatosis.

B. During present admission.

1. Cerebro-spinal fluid clear, no clot. Pressure 160 mgrm. water. Two lymphocytes per c.mm. Protein 90 mgrm. %; globulin absent.

2. X-rays: A direct X-ray of the skull showed some absorption of the posterior clinoid process.

Diagnosis.

Von Recklinghausen's disease and a cerebral tumour were diagnosed, but the latter was difficult to localize. Absence of right corneal reflex, infranuclear paralysis of right facial nerve, weakness of right side of palate and nystagmus towards the right, seemed to point to a site in the right posterior fossa. But the fact that the right VIII was normal, and the presence of Jacksonian fits of right face, arm and eye, right hemiplegia (face and arm > leg) and motor aphasia, all indicated that the left cortex was the more likely position. A relationship to the old extradural abscess in the posterior fossa was considered possible, but unlikely. Meningioma, glioma or tuberculoma were amongst the more probable causes.

Treatment.

Ventriculography and exploration were recommended. Operation February 5th, 1934—Mr. Paterson Ross. Local anæsthesia.

The left parietal eminence was burred, and a ventricular needle passed down, in and forwards towards the sella turcica. At a depth of 3½ cm. from dura, 25 c.c. of yellow fluid were evacuated from a

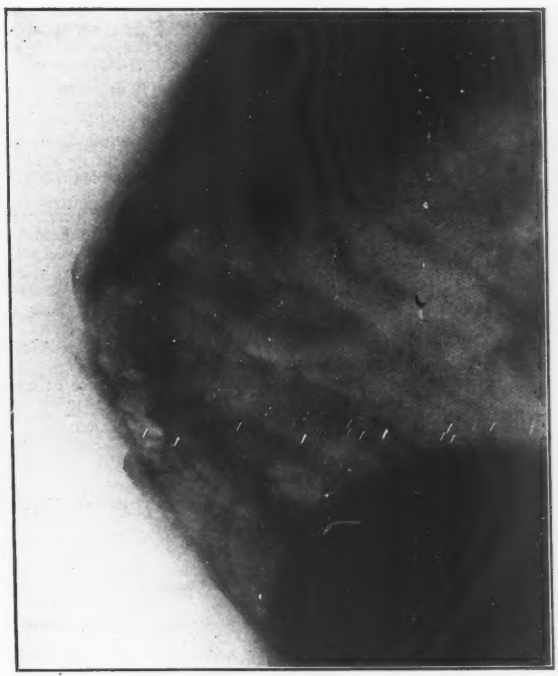

FIG. 7.—CASE 2: ANGULAR KYPHOSIS (LATERAL VIEW).

gliomatous cyst, and replaced by 8 c.c. of air. Dura no longer tense. X-ray showed air deep to and just behind left motor area.

Further treatment.—Radical removal being impracticable, a full course of deep X-ray treatment was given.

Progress.

Steady improvement during next six weeks. When discharged on March 16th, 1934, he could say most words intelligibly, if slowly, and could write better; he had less facial paresis, and was recovering muscle power, sensation and co-ordination. He was readmitted two months later as he had had two fits in the previous five weeks, with return of other symptoms. He could still walk well. Rapid improvement after aspiration of a further 17 c.c. of thick yellow flaky fluid from cyst. Discharged in 2½ weeks.

CASE 3.—H. M—, æt. 33, was admitted, c/o Mr. Foster Moore, on June 18th, 1930.

History of present condition.—Normal at birth.

Æt. 6 months: Fell downstairs, and dates displacement of eye from this. Gradually becoming worse. Right eye pulsates and gets more prominent, especially during emotion.

Æt. 7: On the supposition that a vascular retrobulbar swelling was the cause, Krönlein's operation was performed, the right orbital margin being enlarged laterally. As no improvement occurred, the

right internal carotid was ligatured a few weeks later. The operation proved unsuccessful, and the patient has sought in vain for further surgical help at five different hospitals. It is remarkable that his sight is equal and good in both eyes, and he never "sees double". His chief inconvenience has always been difficulty in getting employment.

Æt. 20: First cutaneous fibroma on abdomen. Painless widespread appearance since. Apart from occasional frontal and occipital headaches his general condition is excellent.

Past history.—Measles, whooping-cough, "croup".

Family history.—No pigmentation, fibromata or congenital abnormality. F., M., 2 brothers, 2 sisters a/w.

Condition on Examination.

Average build, a dark complexion and sandy brown hair. Skin nodules very numerous; trunk more than legs. Skin texture overlying the nodules varies from normal to a thin transparent appearance; colour brown, red or normal. No pigmentation apart from nodules.

FIG. 8.—CASE 3: PROPTOSIS.

Nerve-trunk tumours fewer, but numerous. Size $\frac{1}{8}$ in.–2 in. Movable in only one direction. The largest one in left hypochondrium was 2 in. diameter, dependent, and in appearance and texture resembled a breast with 4 nipples.

Eyes: Right markedly proptosed down and in; optic nerve palpable behind. Eyelids can be closed over it; ocular movements full; visual field and fundus normal. Pulsation felt, but no bruit heard. Scar of operation at outer canthus.

Left: No proptosis. Fundus: Opaque nerve-fibres at 12 o'clock above disc. Visual acuity $\frac{6}{9}$ on both sides.

Skull: Mongolian type. Measurements: Circumference 61 cm., length 20 cm., breadth 16·4 cm. Cephalic index $= \frac{1640}{20} = 82$ $\left(\frac{\text{breadth} \times 100}{\text{length}}\right)$.

Neck: Scar of old operation on carotid artery.

Mouth, heart, lungs, abdomen and central nervous system: N.A.D.

Urine: No albumin. Benedict turned green.

Investigations.

1. *X-ray.*—Bone very thick. Right orbit considerably larger and denser than left. Orbital walls normal. Pituitary fossa poorly defined; right fronto-ethmoidal cells absent. Frontal sinuses normal.

2. *Fasting blood-sugar,* 106 mgrm. %.

Diagnosis.

Von Recklinghausen's disease. The enlarged orbit transmitting pulsation from the brain is a recognized congenital abnormality of bone associated with this disease (5).

Treatment.

None recommended.

DISCUSSION.

Ætiology.—The disease is of developmental origin (6), and may show itself *in utero* or at any age. The fundamental cause is unknown, as there is no constant finding in the reported cases. Almost every endocrine disturbance has been associated (7) with the disease, but in many cases there is no evidence of such. There is at present no positive evidence for a metabolic defect such as is present in ochronosis and alkaptonuria. Syphilis and other infections appear to play no part in causation, though the latter may affect the prognosis (*q.v.*).

Pathology.—The neurofibromata are of connective-tissue origin, and the communication between the tumours and nerve-sheaths can usually be proved in cerebral, nerve-trunk and plexiform fibromata, but it must often be assumed in the case of the cutaneous nodules. The nævus cells are of ectodermal origin (8); fibrous tissue being mesodermal, there is, therefore, an over-production of both of these elements in von Recklinghausen's disease. As both nævus cells and fibrous tissue are found closely associated with the sensory nerve-endings, it is extremely probable that this is the site (7) of the lesion in the epidermis. Endoneurium (7) is more commonly affected than epineurium on nerve-trunks, while intracranial tumours arise from nerve-sheaths, dura or neuroglia (7). Exostoses probably result from periosteal nerve-tumours (6), which may detach osteogenetic cells.

Associated congenital defects.—Skull deformities, meningocele (6), spina bifida (6) and glaucoma (buphthalmos) occur, the latter being associated with multiple ciliary nerve-tumours (5). Deficient orbital walls may occur with this or with pulsating exophthalmos. Megacolon and giant appendix (9) are rarities, while sexual and mental defects are common (7); 27% are sterile, and among the rest "one-child sterility" is the rule. Miscarriages, premature and stillbirths, deaths in infancy, asexuality, cryptorchidism, infantilism and impotence are all more frequent than normal. 8% are feeble-minded (ten times the normal incidence) (7).

Hereditary factors (7).—A minority are familial, transmission being then usually a dominant Mendelian factor carried equally by either sex. In some of these cases pigment and tumours occupy similar positions in succeeding generations. Hereditary neurofibromatosis is also seen in cows, horses, deer and dogs. Its world-wide sporadic occurrence, involving even the "unmixed" races, is, however, evidence in most cases for the mutational theory.

Clinical Features (6).

(1) *Skin and mucous membrane fibromata.*—Cutaneous nodules number one to thousands, and vary from miliary to the size of a melon. Though normally spherical, soft, smooth and raised, they may be either level or pedunculated. Degeneration, with discharge of necrotic material, is commoner than vascularity. The trunk is more affected than the limbs, while palms and soles escape (10). Mucous membranes are rarely affected, but nodules have been found in the stomach, duodenum, ileum, bladder, ureter and kidney. Colic, diarrhœa and dyspepsia have resulted (7).

(2) *Pigmentation.*—Deposits of melanin occur in the skin, usually separate from the nodules. A few patches,

several inches in diameter, and many the size of freckles, are common findings. Often blue at first, they later become brown or red, while depigmented areas (nævus anæmicus of Vorner (7)) are very rare. Mucous membranes always escape.

(3) *Tumours on nerve-trunks* (7).—Varying greatly in size and number, they may affect any nerve, but are rarely seen without the more frequent cutaneous nodules. Mobility at right angles to the nerve and fixation longitudinally are characteristic. Though often symptomless, they can lead to pain, tenderness, increased or diminished nerve function. For example, involvement of the cervical sympathetic causes unilateral sweating or flushing of the face (11), while auditory nerve tumours may result in bilateral deafness. Cough, aphonia, hoarse or irregular breathing are an occasional outcome of tenth nerve fibromata, and lingual tremors of twelfth nerve tumours. The cauda equina, spinal nerve-roots and abdominal sympathetic plexus are not infrequent sites.

(4) *Plexiform neurofibroma.*—In this rarer condition all the nerves to a certain area are thickened and palpable as subcutaneous cords. The bulky, dependent mass frequently overlies a separate exostosis or nerve-trunk tumour. The fifth nerve distribution is more often involved than the limbs and abdomen (10), and hemihypertrophy of tongue, lips or face is sometimes seen.

(5) *Cerebral tumours* (7).—Single or multiple meningiomata and less commonly gliomata have occurred throughout the brain and spinal cord, and besides localizing signs, may produce progressive dementia, epileptiform attacks and hysteria.

(6) *Bone deformities* (12).—Kyphoscoliosis is not infrequent and tends to gross angularity, which may cause pressure symptoms (Case 1). Of unknown cause, it might be classed with the similar deformity seen in syringomyelia. Large irregular exostoses may be produced on the skull or limbs, while coxa valga, softening and bending of pelvic and limb bones are additional possibilities. Bone cysts may cause deficient growth, if involving the epiphysis, or lengthening, if in the shaft, perhaps by increasing the blood-supply. These cysts are quite distinct from those found in Von Recklinghausen's disease of bone (osteitis fibrosa). The former are degenerating neurofibromata, whereas the latter are accompanied by generalized decalcification and parathyroid tumours.

(7) *Elephantiasis nervorum.*—This is very rare, and usually complicated by periosteal and plexiform masses. The whole of a limb is grossly enlarged by masses of fibrous tissue which replace the fat (10). Treves's "elephant man" is the best known example (13). Eosinophilia (*e. g.* 15%) has been recorded (14).

Histology (9).—A moderately vascular, cellular, fibrous tissue is typical. In the skin the cells are arranged in streams, presenting a reticular appearance with occasional fibrous whorls at the edge (6), but the nerve-trunk tumours are denser and present parallel fibres. Even small nerve-fibres are continuous through the tumours (2), which, however, very rarely contain new nerve-fibrils (6). Perivascular fibrosis (6) and scattered lymphocytes are seen at times, while ganglio-neuromata (*e. g.* of the Gasserian ganglion) are of extreme rarity (6). Malignancy is heralded by insidious loss of cell streams and parallel fibres with local invasion and abnormal mitoses.

Diagnosis.—50% cases (7) exhibit both skin tumours and pigment, most of the remainder having the one or the other alone. Mild cases of the latter variety are, in the absence of a positive family history, indistinguishable from the occasional "moles" and skin tumours of normal people (6). Nævi pilosi do not, however, occur. In hereditary cases the other features (7) sometimes occur without pigment or nodules. Ophthalmoscopic examination may reveal opaque nerve-fibres, but these are also seen in an allied developmental defect known as tuberous sclerosis of the brain (15). Diffuse neurofibromata of the skin may be present in this disease, but sebaceous adenomata are typical (7), and pigmentation absent. Great thickening of nerve-trunks without pigmentation characterizes the rare family hypertrophic neuritis (6). Nerve-trunk tumours must be distinguished from lymph-glands and kyphoscoliosis from Pott's disease, with which it is unassociated. Lymphangioma of the face or neck may simulate a plexiform neurofibroma. The skin is not œdematous in elephantiasis nervorum, while the overlying plexiform mass (6) distinguishes the periosteal tumours from cancellous and ivory exostoses.

Course and prognosis.—Blue or brown skin spots are often the earliest (7) and sometimes the only (16) signs of the disease. Though the disease is slowly progressive, its intensity waxes and wanes (*e. g.* Case 1: Disease active prenatally, æt. 1½–15, 25–32). An exacerbation may follow any acute infection or endocrine disturbance, such as occurs at puberty, the menopause or during pregnancy (7). It seems probable that trauma (7) may determine the site of a lesion in a latent case (Cases 1, 2 and 3). Very rarely improvement (6) has occurred after pregnancy, skin tumours atrophying and sometimes leaving palpable gaps in the skin.

While some "die before they are born" (7), others live to old age. The cutaneous and plexiform tumours (10) are of no danger to life, but a cerebral tumour may develop at any time, or malignancy complicate a nerve-trunk tumour. Carcinoma, sarcoma or both may occur

simultaneously from multiple sites, and 12–17% cases die from this cause (7). Melanomata are very rare (10), but sarcomata are apt to be familial (7). This interesting fact makes Von Recklinghausen's disease an excellent example of a developmental defect associated with a congenital tendency to malignant disease. The remaining dangers arise from local symptoms of nerve-trunk tumours—blindness from detached retina, buphthalmos or pressure on the optic nerve; deafness, paraplegia and a host of other complications. The average age at death is probably about 40 in progressive cases surviving infancy.

Prophylaxis.—Even mild cases should not marry, as their offsrping may develop the worst manifestations of the disease and pregnancy (7) frequently heralds an exacerbation. The acute specific fevers, chills and trauma should be avoided as far as possible. It is interesting that the disease tends to die out (7) in any given family, owing to the early deaths caused, the frequency of sterility and the unlikelihood of such hideous people being able to marry.

Treatment.—Drug and endocrine therapy being valueless, symptomatic treatment is indicated. Intracranial tumours, incipient paralyses, malignancy and severe pain may necessitate operation. Hemi-glossectomy was required to allow of closing of the mouth in one case (11). Recurrence is the rule after removal of nerve-trunk tumours (9, 10), so that a wide margin should be left, and a course of deep X-ray treatment given. Progressive kyphoscoliosis may be prevented by a spinal jacket, and good results have been reported from operative measures for early fixation of the vertebræ concerned (16). Cosmetic reasons occasionally justify operation, as in Case 1, but there is a danger of causing malignant transformation (10). Case 3 is an example in which surgery was of no value.

SUMMARY.

The following features, typical of Von Recklinghausen's disease, are present in one or more of the three cases reported:

(1) *Skin and mucous membrane fibromata.*—Multiple pigmented and non-pigmented cutaneous nodules. Two large fibromata attached to gums.

(2) *Pigmentation.*—Sheet type and small dots; congenital and acquired.

(3) *Tumours on nerve-trunks.*—II, VII, VIII and cervical sympathetic: (widespread on smaller nerves in Case 3).

(4) *Plexiform neurofibroma.*—Right side of face.

(5) *Cerebral tumours.*—Glioma behind left motor cortex.

(6) *Bone deformities.* — Periosteal neurofibroma of frontal and mandibular regions. Kypho-scoliosis.

(7) *Elephantiasis.*—Absent.

(8) *Associated congenital abnormalities.*—Multiple skull deformities. Buphthalmos.

(9) *Family history.*—Pigmentation ("Forme frustre").

In conclusion I should like to express my thanks to Dr. Geoffrey Bourne and Mr. Foster Moore for permission to report on their cases, to Mr. Elmslie for reading the proofs of this report, which was written at his suggestion, and to Dr. Parkes Weber for much help and advice.

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A. C. KANAAR.

A LETTER FROM KENYA.

EIGHT years ago a friend told me he was going out to Kenya to buy a coffee estate. He painted a glowing description of life out there, and invited me to join him. It happened to be in the middle of the busy winter work of private practice, when it was one hard drive to get one's round into the day. The memory of those night expeditions, with the

sudden change from the comfort of a warm bed to the cold and damp of the world outside, still raises a shiver even after eight years of unending summer. I was tempted and I fell, and I have never regretted it since. I felt that the thirty years in general practice at home had earned a change.

My wife and I came out, stayed with friends and looked round for ourselves (the friend I was originally to join had died, poor fellow). Our first visit was to a coffee estate near Nairobi. My first surprise came watching the sick parade while dressing each morning. My friend, the owner, had anything up to a dozen standing in a circle and recounting their aches and pains at length —malaria, constipation, abdominal pain, cough and so on. He gravely heard what they had to say and afterwards, in every case, emerged with a mixture of mag. sulph. and about ʒij of ordinary lamp paraffin, and this draught seemed to cure all their woes. I suggested that he was taking rather a heavy responsibility in thus treating his sick, coming as I did from a country where the slightest ill among the house staff is immediately sent to the panel doctor. Since then I have found that the manager on every estate has a sick parade, where he often has to treat smaller ailments for an hour or more each morning before the work of the day begins, only the graver cases being sent to a doctor (usually many miles away) or to the nearest hospital.

From there we went up to friends owning a large dairy farm at 8500 ft. altitude—the days were warm, but every evening in the year warm clothing and a huge wood fire were most necessary and comforting.

Eventually I landed up in the neighbourhood where I am now, with the idea of having a small coffee *shamba* and doing private practice. I saw a 200-acre farm with about 100 acres already planted up with coffee and I nearly bought it. Luckily two friends put it to me that I did know something of medical work and nothing at all about coffee, and that I had better stick to the job I knew. Seeing now the general depression in prices and the lack of rain for the last two or three years, I can never be thankful enough to those two friends.

Practice here, about 30 miles from Nairobi, is always full of interest and variety, and seldom hard enough to be a tax. Most of my work is at my surgery, where I see white, brown and black.

Serious cases are sent into nursing homes or hospitals in Nairobi, and with anything obscure I can always rely on my friends at the Government Medical Laboratory, every one of whom is only too ready to help in any way he possibly can.

Here I would like to point out what an excellent service the Colonial Medical is, from what I have seen personally in this colony at any rate. They have quite a high-grade set of men in it, who get good pay and allowances (home voyage allowance and pension), very interesting work, which is often hard, a wonderful climate and freedom from practice worries. They have every encouragement also to specialize. The only objection that I can see is that they have no settled home for more than their tour of three years or so, and on return from leave will be posted elsewhere, or, at any rate, not get the same house and garden.

I cannot honestly advise any young medical man to come out here with the idea of general practice unless he will settle in Nairobi, or in one of the few large towns. General practice in the country is all very well for a man who has private means behind him, and having put in hard work at home, wishes to help out what income he has with a part-time occupation, but I would not advise it as a whole-time job.

Although imported food, etc., costs more than at home, living, on the whole, is not expensive. One can buy a few acres of land and put up a house cheaply, especially now, when labour is far less expensive than in the past; servants are, on the whole, good and cheap, and, given a local club and a car, one's only other requirements, food and drink, are what one likes, or can make them.

A lover of sport can, as a resident, get it cheaply with a tent and a car. There is excellent trout fishing, with buck and bird shooting to be got free, except for Government licences. A friend sent me a 4-lb. trout the other day, one of three he had caught weighing 15 lb., and this only for a motor car run of 30 miles from here and a walk through lovely forest to the river—miles of it open to all for a yearly Government licence of 25*s*. Big bags and big fish are the rule. I have had as much buck and guinea-fowl shooting as I could wish while staying with a friend 100 miles away on his grazing farm of 5000 acres. The climate can be anything you desire, according to altitude. Here we are only 5000 ft. and the temperature varies from 60° to 85°, but on the slopes of Mount Kenya, on the equator, it is so cold at night at 7000 ft. that thick clothing and a big fire are necessary every night although the days are delightfully warm.

Medical work is very varied. On top of ordinary European diseases, one gets anything from an arm amputated by a crocodile, or lion or leopard wounds, to malaria, yaws, leprosy, etc. Here, up country, one has to have a good dispensary, because the nearest chemist is at an impossible distance away. The chief trouble with the Europeans is the tendency to leave diseases too long before seeing a doctor, either because they live at a distance, or because in the past they

have had to rely almost entirely on home treatment, and have not yet got used to near medical help.

We are passing through rather a grim time here just now in this coffee district, as rain has been scarce, prices low, and bankers unwilling to continue overdrafts. But still one can meet most of the neighbourhood at the local club at the week-end. There, cares and troubles are for a time forgotten, and one, in spite of all, is still glad to be alive and in this land of sunshine.

JOHN STERRY.

STUDENTS' UNION.

CRICKET.

ST. BARTHOLOMEW'S HOSPITAL *v.* ST. MARY'S HOSPITAL.

Semi-final Cup-tie.

Played away on June 24th.
Scores: St. Mary's, 174.
Bowling: Mundy, 7 for 42.

R. M. Kirkwood, c and b Morrison	9	C. G. Nicholson, c Wilson, b Morrison	0
D. J. A. Brown, c Richmond, b Thorogood	0	C. M. Dransfield, c Morrison, b Beemer	6
C. R. Morison, c Thorogood, b Morrison	3	J. D. Anderson, st Schnearson, b Beemer	12
R. C. Dolly, c Gideon, b Thorogood	2	J. B. Bamford, c Thorogood, b Beemer	2
R. Mundy, c Cockburn, b Thorogood	0	J. C. Cochrane, not out	7
G. D. Wedd, c Gideon, b Thorogood	2	Extras	3
		Total	46

Bart.'s lost the toss for the ground, the toss for innings, and most decidedly the match. By lunch-time St. Mary's had made 115 for 5 wickets, the notable features being a well-played 57 by Schnearson, who was brilliantly caught at the second attempt by Kirkwood at mid-off, and the extremely bad fielding of Bart.'s, who gave away a large number of runs, not by misfielding so much as frank laziness. By 3.15 St. Mary's had been dismissed for 174 on a wicket which had never really appeared difficult, although a number of balls had risen rather sharply.

The Bart.'s batting was a dismal failure, only relieved by a last-wicket stand between Cochrane and Anderson, especially a straight drive for 6 by the latter, which was the only one of the match. That the St. Mary's bowlers knew the spots in their wicket better than Bart.'s was suggested by the fact that more often than not they made the ball rise head-high, and of the nine batsmen who were caught, seven were out from bumping balls.

The best bowling performance of the day was by Mundy, who in 24 overs took 7 wickets for 42 runs. The St. Mary's bowlers hardly had time to loosen their arms.

ST. BARTHOLOMEW'S HOSPITAL *v.* BLACKHEATH.

Played at Winchmore Hill on July 7th.
Scores: Blackheath, 162 for 8 declared.
Bowling: Anderson, 3 for 29; Mundy, 3 for 56.

R. M. Kirkwood, c Cockhart, b McAllen	30	J. D. Wilson	Did not bat.
R. C. Dolly, b Carr-Archer	13	J. C. Cochrane	
C. R. Morison, b Banham	4	C. G. Nicholson	
G. D. Wedd, not out	90	D. J. A. Brown	
R. Mundy, b Banham	19	C. M. Dransfield	
J. D. Anderson, c Allen, b Carr-Archer	34	Extras	15
		Total (5 wkts.)	205

Blackheath won the toss and batted first on a perfect wicket. They were rather slow in getting runs, and after 2½ hours declared for 162, leaving Bart.'s two hours to make this number. This they managed to do with a quarter of an hour still in hand, and finished with 205 for 5. Wedd hit lustily for his 90 not out, including 12 fours.

ST. BARTHOLOMEW'S HOSPITAL *v.* SHOEBURYNESS.

Played at Shoeburyness on July 14th. Lost by 3 wickets.
Scores: Shoeburyness Garrison, 255 for 5 wickets.

R. M. Kirkwood, c McEvoy, b Morris	77	W. M. Maidlow, c McLeod, b Gibson	31
R. C. Dolly, c Parkinson, b Gibson	3	I. N. Fulton, run out	9
C. R. Morison, c and b Rosseter	36	R. McEwen, c and b McEvoy	0
C. M. Dransfield, b Harrap	76	E. O. Evans, not out	6
R. Mundy, c McEvoy, b Morris	4	J. R. Simpson, b McEvoy	0
		J. G. Berry, b McEvoy	0
		Extras	9
		Total	251

Bart.'s opened on a perfect wicket amidst perfect surroundings. Kirkwood hit any loose balls hard from the start, and added another 70 to his many this season. Dransfield also played good cricket, and with Morison and Maidlow collecting a few runs, the respectable total of 251 was made in 2½ hours. Shoeburyness were left not quite so long, and played forceful and attractive cricket to pass this total with three minutes to spare. For the last few minutes of the game it rained rather heavily, and prevented the bowlers from having any chance with the slipping ball. Fulton kept wicket excellently, and his three stumps were all opportunely taken.

ST. BARTHOLOMEW'S HOSPITAL *v.* TIMES C.C.

Played at Ravensbourne on June 20th. Match drawn.
Scores: Times C.C., 148 for 8 wickets.
Bowling: Morison 3 for 20; Nicholson, 3 for 32.

R. M. Kirkwood, b Hincliff	72	C. G. Nicholson, b Blanchard	22
R. C. Dolly, b Burton	17	J. D. Anderson, c Daniels, b Blanchard	0
C. R. Morison, run out	6	J. C. Newbold, b Carter	7
D. J. A. Brown, st Burnage, b Carter	6	W. R. Grant, not out	3
W. M. Capper, c and b Carter	0	Extras	16
R. Mundy, b Blanchard	53		
J. D. Wilson, b Carter	35	Total	237

Kirkwood and Dolly saw the 50 on the board before the latter was out, after which Kirkwood got little support until he was joined by Mundy, when the score started to mount rapidly. Kirkwood was out at 191, having made a useful 72. Mundy, joined by Wilson, scored at a great rate, and his 50 was one of the best innings this year. After a good first-wicket partnership the *Times* fared badly, and had only a draw to play for. Morison, in the last over of the match, took 3 wickets in 4 balls.

SWIMMING CLUB.

United Hospitals Water-Polo Semi-Final.

ST. BARTHOLOMEW'S HOSPITAL *v.* ST. MARY'S HOSPITAL.

Played at St. Mary's Hospital, June 25th, 1934. Result: Bart.'s 11, St. Mary's 1.

Mary's opened the scoring by a swim through from half-way, followed by a quick throw-in. After this Bart.'s appeared to take complete possession of the game, and from then onwards never appeared to be in a dangerous position. At half-time, as a result of a series of passing movements and quick shooting, the score was 7—1, goals having been scored by McKane, Newbold, Sutton and Vartan. During the second half four more goals were scored by Newbold, Sutton and Vartan. Bart.'s combined very well as a team throughout the game.

Team.—C. M. Dransfield, G. S. Vartan, B. H. Goodrich, R. J. C. Sutton, T. O. McKane, J. C. Newbold, C. K. Vartan.

United Hospitals Swimming Gala.

The fourteenth Annual Gala of the United Hospitals' Swimming Club was again held at Marshall Street Baths on June 30th, and was well supported. The evening provided some exciting races, which

were interposed by an excellent display of acrobatic diving by the Highgate Diving Club, and an exhibition of fancy swimming by Miss E. V. Davies, of Cardiff. The last event of the evening proved more exciting than usual when Bart.'s met Guy's in the final of the Inter-Hospitals Water Polo, which Bart.'s again won for the sixth year in succession; similarly Bart.'s won the swimming and the diving for the fifth and second years in succession respectively. We should like to offer our hearty congratulations to J. C. Newbold and R. J. C. Sutton on their magnificent performances throughout a very strenuous evening.

United Hospitals Water Polo Final.

ST. BARTHOLOMEW'S HOSPITAL *v.* GUY'S HOSPITAL.

Played at Marshall Street Baths, June 30th. Result: Bart.'s 3, Guy's 2.

This was by far the best match of the season, and though there was close marking accompanied by some of the questionable tactics which always occur in the final, the play was of quite a high standard and most exciting for the spectator.

Vartan opened the scoring for Bart.'s after a pass from Newbold, who swam through from behind, half-way. Play then remained even until Bart.'s got possession of the ball, and after some clever passing Vartan scored again the score at half-time being Bart.'s 2, Guy's 0.

In the second half Bart.'s defended the deep end and Guy's pressed hard. Soon after half-time Sutton intercepted a pass and swam through to pass to Newbold, who scored in the right-hand corner. Guy's then scored two goals in fairly rapid succession, and the game ended without further scoring in a close victory for Bart.'s. Dransfield played a sound game in goal.

Team.—C. M. Dransfield, G. S. Vartan, P. Quibell, R. J. C. Sutton, T. O. McKane, J. C. Newbold, C. K. Vartan.

RIFLE CLUB.

The season on the open range was brought to an end with the United Hospitals Challenge Cup match at Bisley on Monday, July 16th.

Unfortunately it cannot be said to have been a very successful one, both the Armitage Cup and the United Hospitals Challenge Cup having found homes far removed from Bart.'s. However, there are other seasons to come, and it is hoped that the end of a not too distant one will find one or other or both of these "pots" once more sitting in the Library.

Congratulations are offered to St. Mary's team in general for the excellent score with which they won the Challenge Cup, and to R. J. C. Hutchinson in particular for his score of 104 out of a possible 105—a record performance.

Armitage Cup Result.

Won by Guy's	Score	2238
2nd, St. Mary's	,,	2225
3rd, St. Bart.'s	,,	2216
4th, The London	,,	2212
5th, St. Thomas's	,,	2162

St. Bart.'s Final Stage Scores.

B. P. Armstrong	96
J. E. Underwood	94
J. Dalziel	92
B. C. Nicholson	91
K. F. Stephens	87
H. Bevan-Jones	77

At the United Hospitals Prize Meeting the following prizes were won by members of Bart.'s team:

		Score.	Possible.
500 yards.	Tied 1st prize, B. C. Nicholson	34	35
600 ,,	1st prize J. E. Underwood	33	35

The Benetfink Cup, for the highest aggregate of all scores made by a member of St. Bart.'s team in the Armitage Cup Competition, was won by J. Dalziel with a score of 387 out of a possible 420.

United Hospital's Challenge Cup Result.

Won by St. Mary's	Score	489
2nd, Guy's	,,	481
3rd, St. Thomas's	,,	460
4th, St. Bart.'s	,,	456
5th, The London	,,	427

Highest possible score, 525.

St. Bart.'s.

J. Dalziel	98
K. F. Stephens	93
B. P. Armstrong	91
B. C. Nicholson	87
J. E. Underwood	87

J. D.

ATHLETIC CLUB.

THE ANNUAL SPORTS.

This meeting was held at Winchmore Hill on June 30th, in brilliant sunshine. This last fact is notable, because for many years past the function has been spoilt by rain.

The meeting was further notable for several good performances. Two records were broken: Dransfield threw the javelin 143 ft. 10 in. to beat his previous record by 10 ft.; second and third in this event also beat the previous record. Wedd put the weight 36 ft. 11 in., thereby beating the previous record by a few inches. Records were equalled by Nel in the 100 yds., and Youngman in the 120 yds. hurdles. After the meeting the prizes were distributed by Mrs. Kettle.

RESULTS.

100 Yards: 1, J. G. Nel; 2, J. G. Youngman. Won by 1 yard. Time, 10$\frac{1}{5}$ sec.

220 Yards: 1, J. G. Nel; 2, W. H. Jopling. Won by inches. Time, 23$\frac{3}{5}$ sec.

440 Yards: 1, W. H. Jopling; 2, J. G. Nel. Won easily. 53$\frac{3}{5}$ sec.

880 Yards Handicap: 1, G. T. S. Williams (10 yards); 2, N. J. P. Hewlings (30 yards). Won by 5 yards. Time, 2 min. 8 sec.

120 Yards Handicap: 1, G. Herbert (5 yards); 2, G. Gray (10 yards). Won by inches. Time, 11$\frac{3}{5}$ sec.

1 Mile: 1, G. T. S. Williams; 2, N. J. P. Hewlings. Time, 4 min. 45 sec.

3 Miles: 1, N. J. P. Hewlings; 2, H. B. Lee. Time, 17 min. 20 sec.

Throwing the Javelin: 1, C. M. Dransfield, 143 ft. 10 in. (record); 2, E. E. Harris, 139 ft. 10 in.

Putting the Weight: 1, G. D. Wedd, 36 ft. 11 in. (record); 2, G. Gray.

High Jump: 1, G. L. Way, 5 ft. 4 in.; 2, G. H. Fairlie-Clarke, 5 ft. 2 in.

120 Yards High Hurdles: 1, J. G. Youngman; 2, G. L. Way. Won by 1 yard. Time, 17$\frac{1}{5}$ secs.

Long Jump: 1, J. G. Youngman, 20 ft. 1$\frac{1}{2}$ in.; 2, J. G. Nel.

Pole Vault: 1, C. M. Dransfield, 8 ft.; 2, J. G. Nel, 7 ft.

Inter-Club Relay: 1, Rugger 1st XV; 2, Rugger "A" XV; 3, Veterans.

CORRESPONDENCE.

To the Editor, 'St. Bartholomew's Hospital Journal'.

DEAR MR. EDITOR,—I wish to express through you my grateful thanks to those Fellows of the Royal College of Surgeons who assisted me in my election to the Council. I very much appreciate the loyal support that they have given to me, and trust that my efforts on the Council will be such as to deserve it.

Yours sincerely,

Mullion, W. GIRLING BALL.

July 14th, 1934.

REVIEW.

BRIGHT'S DISEASE. By J. NORMAN CRUICKSHANK, M.C., M.D., D.Sc., F.R.F.P.S.(Glas.), M.R.C.P.(Lond.). (Edinburgh: E. & S. Livingstone, 1933.) Pp. 208.

The author's object in writing this book is to provide the practitioner and the senior student with a short account of the clinical application of the modern views of the nature of Bright's disease, and only those who realize the difficulty of this task will fully appreciate the success with which it is achieved.

The text is divided into ten chapters, the first of which contains a useful summary of the principal theories of normal kidney function, subsequent chapters being devoted to the classification, description and ætiology of the inflammatory, degenerative and vascular types of Bright's disease. Tests of renal function, œdema and uræmia are dealt with in separate chapters, and an appendix is added which contains notes on the structure of the kidney, the classification of Bright's disease, and methods of estimating renal functional sufficiency.

The general arrangement is good, but might, I think, be improved by placing the notes on the structure of the kidney in the first chapter before the account of kidney function. The classification employed errs on the side of simplicity but is not unconventional, while an ingenious diagrammatic representation is given of the mixed types of nephritis. Focal nephritis is briefly considered, but many will disagree with the author when he says that in the embolic form uræmia does not occur.

The chapter on the vascular types of Bright's disease is perhaps the least successful, and the views put forward on the relationship between the various sub-types open to criticism.

In the treatment of Bright's disease the only serious omission is the use of intravenous glucose solution as a diuretic, which is of value in certain cases.

The various tests for renal function are described and criticized, but it is unfortunate that the urea concentration test is accepted as the standard of nitrogen excreting function in favour of the urea clearance which the author allows is probably the better test.

The final chapters on œdema and uræmia should greatly assist students in understanding these subjects, and stimulate their interest in them.

Short bibliographies at the end of each chapter add greatly to the value of a book for which there is a great need, and for which there should be a great demand.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

ADRIAN, E. D., M.D., D.Sc., F.R.S., F.R.C.P. *The Mechanism of Nervous Action: Electrical Studies of the Neurone.* Philadelphia: University of Pennsylvania Press, 1932.

ANDREWES, C. H., M.D. "Vaccines in Relation to the Ætiology of Tumours." *Lancet*, July 14th, 1934.

BETT, W. R., M.R.C.S., L.R.C.P. "Some Pædiatric Eponyms: V. Young's Rule." *British Journal of Children's Diseases*, April–June, 1934.

BURKE, G. T., M.D., F.R.C.P., I.M.S. (and GUPTA, S. P., M.D.). "Dry Pleurisy with High Eosinophil Leucocytosis." *British Medical Journal*, July 7th, 1934.

FEILING, ANTHONY, M.D., F.R.C.P. "Hemiplegia." *Practitioner*, July, 1934.

HALL, ARTHUR J., M.A., M.D., D.Sc.(Hon.), F.R.C.P. "The Prognosis and Treatment of Chronic Epidemic Encephalitis." *Practitioner*, July, 1934.

MYERS, CHARLES S., C.B.E., F.R.S. *A Psychologist's Point of View: Twelve Semi-popular Addresses on Various Subjects.* London: William Heinemann, Ltd., 1933.

ROSS, J. PATERSON, M.S., F.R.C.S. "Prognosis of Raynaud's Disease." *Lancet*, July 14th, 1934.

VINES, H. W. C., M.A., M.D. *Green's Manual of Pathology*, 15th edition. London: Baillière, Tindall & Cox, 1934.

CHANGES OF ADDRESS.

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APPOINTMENTS.

BURROWS, H. J., M.B., B.Chir.(Cantab.), F.R.C.S., appointed Hon. Orthopædic Surgeon to the National Hospital, Queen Square.

CASTLEDEN, L. I. M., M.D.(Lond.), appointed Honorary Medical Registrar to the Royal Sussex County Hospital, Brighton.

SPARKS, J. V., D.M.R.E.(Cantab.), appointed Hon. Radiologist to the King Edward VII Sanatorium, Midhurst.

BIRTHS.

STRUGNELL.—On July 16th, 1934, at Royal Marine Barracks, Plymouth, to Edythe, wife of Surgeon-Commander L. F. Strugnell, R.N.—a son.

WILLIAMS.—On June 7th, 1934, at Hazelwood, Nailsworth, Glos, to Mary, wife of Dr. R. N. Williams—a son.

MARRIAGE.

EVANS—HENDERSON.—On July 17th, 1934, at the Church of St. John the Evangelist, Edinburgh, Evan Stanley Evans, to Muriel Gordon Henderson, F.R.C.S.E.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, *St. Bartholomew's Hospital, E.C. 1.*

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